

REMARKS

Claims 1 to 24 are pending. Reconsideration and withdrawal of the rejections in view of the following comments are respectfully requested.

Obviousness-Type Double Patenting Rejection

Claims 1-24 were rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-29 of U.S. Patent No. 6,720,187. Upon an indication of otherwise allowable subject matter and in the event this rejection is maintained, Applicants will provide an appropriate response.

§ 103 Rejections

Claims 1-24 were rejected under 35 U.S.C. § 103(a) as being obvious over Kellogg et al. (U.S. Patent No. 6,143,248). This rejection is respectfully traversed. In addition, Applicants continue to reserve the right, asserted in the Response filed 26 July 2007, to swear behind this document at a later date. In the interest of advancing prosecution of the application, however, Applicants continue to address this rejection on its merits.

Independent claims 1, 6, 10, 13, and 17 each claim a sample processing device including, *inter alia*, a *rectangular body comprising four identifiable corners at the junctions of four identifiable sides and two major surfaces*, and a plurality of process arrays, wherein the output chambers of the process arrays of the plurality of process arrays are arranged in a *rectilinear grid array*. Further, independent claims 1, 6, 10, and 13 also claim that the input chambers of the plurality of process arrays are arranged in *rectilinear grid array*. Kellogg et al. fail to teach or suggest any of these features.

The Examiner appears to acknowledge that Kellogg fails to teach or suggest a rectangular body, but takes the position that the “configuration of the claimed container is a matter of design choice which a person of ordinary skill in the art would have found obvious.” Applicants respectfully disagree.

Kellogg shows “a platform of the invention comprising a metering capillary as described in Example 2” (Kellogg et al., col. 13, lines 34-36). The platform is described as a disk in

Example 2 of Kellogg et al. (col. 32, lines 47-48, referencing the microplatform disks described in Example 1). Furthermore, Figure 12 itself depicts a curved platform edge and specifically discloses the feature of a *disk* axis (emphasis added). Thus, the body depicted in Figure 12 of Kellogg is a disk-shaped body which does not include four identifiable corners at the junctions of four identifiable sides and two major surfaces as recited in claims 1, 6, 10, 13, and 17.

Kellogg teaches a centrifugal rotor or microsystems platform for providing centripetally-motivated fluid micromanipulation. As a disk is the geometric shape taught by Kellogg to accomplish these teachings, the Examiner has failed to identify a reason that one skilled in the art would be motivated to modify the disk of Kellogg to a shape of four identifiable corners at the junctions of four identifiable sides and two major surfaces in a centrifugal system.

Rectilinear grid array

Kellogg et al. describe a centrifugal rotor having, *inter alia*, entry ports (A), fluid chambers (E), and overflow chambers (D) arranged in a circular arc on a circular disk. (Kellogg et al., col. 31, line 61; col. 32, line 46 to col. 33, line 61; Figure 12). In fact, it is noted in the Office Action mailed February 27, 2007 (and cited in the final Office Action dated October 15, 2007, at page 3, line 13), that "[t]he Office maintains *all of the elements* taught by Kellogg et al. are arranged in a circular arc around the disk axis as shown in figure 12." (emphasis added). Applicants submit that this is an acknowledgment by the Office that Kellogg et al. do not teach output and input chambers of the process arrays of the plurality of process arrays that are arranged in a rectilinear grid array as recited in claims 1, 6, 10, 13, and 17.

Kellogg provides no teaching as to the *arrangement* of elements of process arrays. At most, what is taught by Figure 12 is that certain elements of process arrays according to Kellogg et al. may have a rectangular shape. Applicants maintain the position that Kellogg et al. fail to teach a sample processing device that includes input chambers and output chambers (or output chambers, as recited in claim 17) that are arranged in a rectilinear grid array, as recited in claims 1, 6, 10, 13, and 17. In addition, the Examiner has failed to identify a reason that one skilled in the art would be motivated to modify the elements of process arrays to form a rectilinear grid array as recited in claims 1, 6, 10, 13, and 17.

For at least the above reasons, it is submitted that claims 1, 6, 10, 13, and 17 are not obvious over Kellogg et al. Reconsideration and withdrawal of this rejection are, therefore, respectfully requested.

Claims 1-24 were also rejected under 35 U.S.C. § 103(a) as being obvious over EP 0693560. This rejection is respectfully traversed.

EP 0693560 (hereinafter "EP '560") teaches a method and test unit for carrying out an immunoassay or an integrated nucleic acid amplification and nucleic acid assay (EP '560, abstract). It is asserted that EP '560 teaches rectangular test units "comprising wells (50, 60, 62) in fluidic connection [which] have been read on the claimed 'input', 'primary process chamber' and 'output chamber' respectively" (final Office Action dated October 15, 2007, page 4, lines 1-4). Applicants disagree that EP '560 teaches rectangular test units and additionally point out that no portion of EP '560 is identified as teaching the features of input chambers and output chambers of process arrays of the plurality of process arrays as recited in claims 1-19.

First, it is submitted that the test units taught by EP '560 do not include a rectangular body comprising four identifiable corners at the junctions of four identifiable sides and two major surfaces as recited in claims 1-19. The test units of EP '560 include a square (outer) end and a rounded (inner) end (EP '560, col. 8, lines 13-15; see also, Figures 4, 5, 6A, 7A, 8A, 9A, 10A, 11A, 12A, 13A, and 14A). The Examiner has failed to identify a reason that one skilled in the art would be motivated to modify the test units of EP '560 to a shape of four identifiable corners at the junctions of four identifiable sides and two major surfaces in a centrifugal system.

In addition, while it is indicated in the final Office Action that elements of the test unit of EP '560 are considered to read on the claimed "input," "primary process chamber" and "output chamber" (elements 50, 60, and 62, respectively), the test units of EP '560 include a single process array including chambers 50, 60, 62, 64 and 66 interconnected by channels in a "linear arrangement" so that "centrifugal force can be applied by the apparatus of Figs. 1-3 to properly sequence the flow of the liquid biological sample and liquid reagents through the test unit" (EP '560, col. 12, lines 37-42; Figures 4, 5, 6A, 7A, 8A, 9A, 10A, 11A, 12A, 13A, and 14A). Because of that arrangement of chambers of a process array provided on the test units of EP '560, it is submitted that EP '560 does not teach a sample processing device including a rectangular

body and a plurality of process arrays *located within the body*, each of the process arrays including an input chamber, an output chamber, and a primary process chamber located between the input chamber and the output chamber, wherein the primary process chambers are arranged in a circular arc, and further wherein the sample processing device includes output chambers arranged in a rectilinear grid array (claims 1, 6, 10, 13, and 17) and the input chambers are arranged in a rectilinear grid array (claims 1, 6, 10, and 13). Moreover, the Examiner has failed to identify a reason that one skilled in the art would be motivated to modify the test units of EP '560 to (1) to include a plurality of process arrays located within the body, each of the process arrays including an input chamber, an output chamber, and a primary process chamber, or (2) arrange either the output chambers or the input chambers in a rectilinear grid array.

For at least the foregoing reasons, it is submitted that claims 1, 6, 10, 13, and 17 are not obvious over EP '560. Thus, reconsideration and withdrawal of the rejections of claims 1-24 as obvious over EP 0 693 560 is respectfully requested.

In view of the above, it is submitted that the application is in condition for allowance.

Respectfully submitted,

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